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EXAMINER
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ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*06 September 2005*</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *7 and 27* is/are allowed.

6)☒ Claim(s) *1-6,8-26, and 28-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

5   application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

September 6, 2005, has been entered.

10   ***Response to Amendment***

In response to the Final Office Action dated June 2, 2005, claims 1, 7, 21, 27,

and 41 have been amended.

In response to Applicant's amended claims, the Examiner finds the amended

language to comply with the written description requirement of 35 U.S.C. 112, first

15   paragraph, and therefore, the 35 U.S.C. 112 rejections to claims 1-40 are withdrawn.

Response to Arguments

Applicant's arguments filed July 8, 2005, have been fully considered but they are

not persuasive.

20   Regarding claims 1 and 21, Applicant asserts (p. 15, Response of July 8, 2005)

that neither Dunton nor Chen disclose "extracting still frames from said contiguous

frame sequence at a selectable time interval to represent the target object as said still

image." The Examiner respectfully disagrees.

Dunton teaches a system for creating a still image of a target object by utilizing a

video camera, comprising: a support device (col. 4 lines 49-57) configured to transport

5   said video camera (col. 2 lines 22-23) across said target object during a scanning

procedure (fig. 1A; col. 2 lines 50-53) to capture a contiguous frame sequence of video

data corresponding to said target object (capture of a contiguous frame sequence of

video data is inherent to the operation of a video camera), and a scanning manager

coupled to said video camera for analyzing scan motion data from said scanning

10   procedure, and responsively generating still frames corresponding to said target object

to form a composite image (fig. 1A indicator 140; col. 4 lines 25-34). However, Dunton

does not disclose responsively extracting still frames from said contiguous frame

sequence at a selectable time interval to represent the target object as a still image.

Nevertheless, Chen teaches a camera that can be configured to stitch frames

15   into a composite image; frames that can be generated at either a standard rate or at a

rate correlated with movement and then employed in the stitching process (col. 5 lines

9-16, col. 6 lines 31-38.) It would have been obvious to one of ordinary skill in the art at

the time of the invention to employ the selectable time interval to be the same as the

frame capture rate applicable by the teaching of Chen within the design of the system

20   as taught by Dunton, so that there is no possible loss of captured data, as every frame

is employed into generating the target image. Accordingly, the Examiner respectfully

stands behind the 35 U.S.C. § 103(a) rejections to claims 1 and 21.

Regarding claims 2-6, 8-20, 22-26, and 28-40, each depend either directly from

or indirectly from independent claims 1 and 21, respectively, and thus inherit all the

limitations of independent claims 1 and 21. Consequently, based on their dependence

and the foregoing response to arguments relating to claims 1 and 21, the Examiner

5   respectfully stands behind the 35 U.S.C. § 103(a) rejections to claims 2-6, 8-20, 22-26,

and 28-40.

Additionally, Applicant asserts (p. 19, Response of July 8, 2005) that the cited

references fail to teach or disclose a system that "combines said video data in said

overlap region" as found in claims 18 and 38. Again, the Examiner respectfully

10   disagrees.   As indicated in the Final Office Action, dated June 2, 2005, Dunton, Chen,

Kaye, and Bohn teach all the limitations of claim 18, including a teaching a system

wherein a stitching software program combines said video data in said overlap region

('744 – col. 6 lines 45-46, '284 – col. 4 line 49 – col. 5 line 21, col. 6 line 20 – col. 7 line

43.) In addition, further support for combining video data in the overlap regions can be

15   found with the references at other locations such as, '744 – col. 6 lines 32-59 and '284 –

col. 7 lines 3-11.   Given the clear content of the references, the Examiner respectfully

stands behind the 35 U.S.C. § 103(a) rejections to claims 18 and 38.

Regarding claim 41, Applicant asserts (p. 20, Response of July 8, 2005) that the

cited references fail to teach or disclose a scanning manager "extracting still frames

20   from said contiguous frame sequence at a selectable time interval to represent said

target object as said still image" as found in claim 41. The Examiner respectfully

disagrees. Although the wording is different, the material, with the exception of the

preamble limitation of a computer-readable medium, is considered substantively

equivalent to claims 1 and 21, respectively, as discussed above and for that reason all

applicable responses are to be applied thereto. As to the claimed steps taking the form

of program instructions within a computer-readable medium, Anderson is provided to

5   teach putting operational steps, in the form of program instructions, onto a computer

readable medium (col. 13 lines 33-54, col. 14 lines 25-43.) It would have been obvious

to one of ordinary skill in the art at the time of the invention to transfer the steps as

taught by Dunton and Chen, which are effectuated by processors within programmed

devices, and due to their processor based execution, are employed as programmed

10   instructions, onto a computer readable medium comprising program instructions as

taught by Anderson, so that they may be loaded as firmware onto a device to update or

restore device functionality without having to update or replace device hardware.

In response to Applicant's argument that there is no suggestion to combine the

references, the examiner recognizes that obviousness can only be established by

15   combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the

references themselves or in the knowledge generally available to one of ordinary skill in

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re*

Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation for

20   implementing the steps via a computer readable medium is a motivation that is

generally available to one of ordinary skill in the art. Based on the foregoing, the

Examiner respectfully upholds a 35 U.S.C. § 103(a) rejections to claim 41.

Regarding claim 42, Applicant asserts (p. 22, Response of July 8, 2005) that

claim 42 is not anticipated or made obvious by the teachings of Dunton. Again, the

Examiner maintains the prior rejection of the original claim 42. As previous provided in

the Final Action dated June 2, 2005:

5   The language of claim 42 is as follows: "A system for creating a still image of a

target object by utilizing a video camera, comprising: means for transporting said video

camera across said target object during a scanning procedure; means for analyzing

scan motion data from said scanning procedure; and means for generating still frames

corresponding to said target object.

10   First, the Specification provides means for transporting said video camera across

said target object during a scanning procedure that includes a reflective device that

"may be utilized to perform a scanning procedure (p. 12 lines 5-9), as well as expressly

providing for alternative embodiments that "may readily include various other

components and functionalities in addition to, or instead of, those components and

15   functionalities discussed in conjunction with the FIG. 5 embodiment" (p. 5 lines 8-11),

and may be implemented using any other configuration (p. 12 lines 1-2.)

Correspondingly, the Dunton reference provides means for transporting said video

camera across said target object during a scanning procedure (col. 4 lines 49-64) that

includes transporting a camera across a target via rotational movement, the employs a

20   mirror to record surrounding images (also see Fig. 3A.) Second, the Specification

provides means for analyzing scan motion data from said scanning procedure that

includes a control module incorporating a CPU that may be implemented to include any

appropriate microprocessor device (p.8 lines 14-24), as well as expressly allowing for a

control module that "may readily include various other components in addition to, or

instead of, those components discussed in conjunction with the FIG. 3 embodiment" (p.

8 lines 20-22.) Correspondingly, the Dunton reference provides means for analyzing

5   scan motion data from said scanning procedure (col. 6 lines 20-23) that includes a

processor or processing unit. Finally, the Specification provides means for generating

still frames corresponding to said target object that includes a control module

incorporating a CPU to process still frames of video data into a corresponding still

image (p.8 lines 14-24; p. 9 lines 1-26.) Correspondingly, the Dunton reference

10   provides means for generating still frames corresponding to said target object (col. 4

lines 26-30) that includes a processing unit that combines images from a video camera

into a single image.

Based on the foregoing comparisons, it is demonstrated that each of the

limitations of the instant application, as claimed and written, are also found within the

15   Dunton reference, and therefore the 35 USC 102(e) rejection to claim 42 is maintained

by the Examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

20   form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section

5   351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

Claim 42 is rejected under 35 U.S.C. 102(e) as being anticipated by Dunton et

10   al. (US 6,304,284.)

Regarding claim 42, Dunton teaches a system for creating a still image of a

target object by utilizing a video camera, comprising: means for transporting said video

camera across said target object during a scanning procedure (col. 4 lines 49-64);

means for analyzing scan motion data from said scanning procedure (col. 6 lines 20-

15   23); and means for generating still frames corresponding to said target object (col. 4

lines 26-30.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

20   obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.

25   Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 19-24 and 39-40 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Dunton et al. (US 6,304,284) in view of Chen (US 6,552,744.)

Regarding claim 1, Dunton teaches a system for creating a still image of a target

30   object by utilizing a video camera, comprising: a support device (col. 4 lines 49-57)

configured to transport said video camera (col. 2 lines 22-23) across said target object

during a scanning procedure (fig. 1A; col. 2 lines 50-53) to capture a contiguous frame

sequence of video data corresponding to said target object (capture of a contiguous

frame sequence of video data is inherent to the operation of a video camera), and a

scanning manager coupled to said video camera for analyzing scan motion data from

5   said scanning procedure, and responsively generating still frames corresponding to said

target object to form a composite image (fig. 1A indicator 140; col. 4 lines 25-34).

However, Dunton does not disclose responsively extracting still frames from said

contiguous frame sequence at a selectable time interval to represent the target object

as a still image.

10   Nevertheless, Chen teaches a camera that can be configured to stitch frames

into a composite image; frames that can be generated at either a standard rate or at a

rate correlated with movement and then employed in the stitching process (col. 5 lines

9-16, col. 6 lines 31-38.)   It would have been obvious to one of ordinary skill in the art at

the time of the invention to employ the selectable time interval to be the same as the

15   frame capture rate applicable by the teaching of Chen within the design of the system

as taught by Dunton, so that there is no possible loss of captured data, as every frame

is employed into generating the target image.

          Regarding claim 2, Dunton and Chen disclose all of the limitations of claim 2 (see

the 103(a) rejection to claim 1 supra), including disclosing a system wherein a stitching

20   software program combines said still frames to produce said still image, said stitching

software program residing on one of said video camera ('744 – col. 2 lines 44-51) and

an external computer device ('284 – col. 4 lines 25-34, col. 6 line 20 – col. 7 line16.)

Regarding claim 3, Dunton and Chen disclose all the limitations of claim 3 (see the 103(a) rejection to claim 1 supra), including disclosing a system wherein said target object includes one of a document, a photographic image, a physical object, a graphics image, and a geographic location ('284 – fig. 1A.)

5   Regarding claim 4, Dunton and Chen disclose all the limitations of claim 4 (see the 103(a) rejection to claim 1 supra), including disclosing a system wherein a motion detector generates said scan motion data by monitoring said support device during said scanning procedure, said scan motion data including a scan speed and a scan direction ('284 – col. 3 lines 26-28, col. 4 lines 57-62.)

10   Regarding claim 19, Dunton and Chen disclose all the limitations of claim 19 (see the 103(a) rejection to claim 1 supra), including disclosing a system wherein said video camera performs a reiterative combination procedure, said reiterative combination procedure repeatedly combining an immediately-preceding one of said still frames and a current one of said still frames to generate said still image ('284 – col. 6 line 20 – col.

15   7 line 51.)

Regarding claim 20, Dunton and Chen disclose all the limitations of claim 20 (see the 103(a) rejection to claim 1 supra), including disclosing a system wherein said scanning procedure is performed by one of a moving video camera process ('284 – fig. 1A and 1B), a moving target object process, and a stationary camera-stationary target

20   process that utilizes a moving scanning reflector element ('284 – fig. 3A.)

Regarding claims 21-24 and 39-40, although the wording is different, the material

is considered substantively equivalent to claims 1-4 and 19-20, respectively, as

discussed above.

5   **Claims 5-6, 8-11, 14, 25-26, 28-31 and 34** are rejected under 35 U.S.C. 103(a)

as being unpatentable over Dunton et al. (US 6,304,284) and Chen (US 6,552,744), in

further view of Kaye (US 5,497,188.)

Regarding claim 5, Dunton and Chen disclose all the limitations of claim 5 (see

the 103(a) rejection to claim 1 supra), except for a direct teaching a system wherein

10   said support device includes a cradle that is initially positioned at a starting index of a

scan track to allow said video camera to frame said target object using at least one of a

focus mechanism and a zoom mechanism. However, Dunton does teach the camera

being initially positioned at a starting index of a scan track ('284 – col. 4 lines 35-48), the

camera moved in a lateral direction by a motor driven apparatus ('284 – col. 4 lines 51-

15   54), and the system using focusing information from the lens ('284 – col. 3 lines 42-43;

col. 4 lines 26-30.)

Nevertheless, Kaye teaches a similar camera system wherein said support

device includes a cradle (fig. 1 indicator 40) and as well a proper focusing and zooming

prior to image capturing (col. 9 lines 29-41.) It would have been obvious to one of

20   ordinary skill in the art at the time the invention was made to combine the cradle and

camera operation as taught by Kaye, with the system as taught by Dunton and Chen.

One of ordinary skill in the art at the time the invention was made would be motivated to

combine these teachings so that stable camera operation could begin in a state which

provides a point of reference for later image manipulation, as well as in a state where

the images may be captured clearly, and within a desired magnification.

Regarding claim 6, Dunton, Chen and Kaye disclose all the limitations of claim 6

5   (see the 103(a) rejection to claim 5 supra), including teaching a system wherein a

system user enters scan parameters into said video camera for performing said

scanning procedure, said scan parameters including at least one of a scan speed

control, a scan direction control, a still frame time interval control, a scan overlap

control, and a scan resolution control ('188 – col. 9 lines 5-19.)

10   Regarding claim 8, Dunton, Chen and Kaye disclose all the limitations of claim 8

(see the 103(a) rejection to claim 5 supra), including teaching a system wherein said

cradle begins traveling along said scan track during said scanning procedure, said video

camera responsively beginning to capture and store video data that corresponds to said

target object ('188 – col. 9 lines 33-46; '284 – fig. 2 and col. 4 lines 35-67.)

15   Regarding claim 9, Dunton, Chen and Kaye disclose all the limitations of claim 9

(see the 103(a) rejection to claim 8 supra), including teaching a system wherein a

display manager in said video camera displays an active scan mode indicator on a user

interface of said video camera during said scanning procedure, said active scan mode

indicator displaying user settings for said scan parameters ('188 – col. 8 line 50 – col. 9

20   line 4; '744 – col. 7 lines 54-64.) Official Notice is taken regarding the fact that camera

displays are a commonly found means of output of data and images, as well as the

practice of user settings and camera parameters being outputted onto a camera's

display; concepts which are well known and expected in the art. It would have been

obvious to one of ordinary skill in the art at the time the invention was made to indicate

user settings for given scan parameters, so that a user may be able to confirm correct

or incorrect settings early in a scan session, as well as be able to know their current

5   status in the event they need to be altered.

Regarding claim 10, Dunton, Chen and Kaye disclose all the limitations of claim

10 (see the 103(a) rejection to claim 8 supra), including teaching a system wherein said

video camera captures said video data using a complete video frame format in which a

series of sequential video frames each contain a complete pixel set ('284 – col. 6 line 20

10   – col. 7 line 16.)

Regarding claim 11, Dunton, Chen and Kaye disclose all the limitations of claim

11 (see the 103(a) rejection to claim 8 supra), including a teaching a system wherein a

motion detector captures scan motion data corresponding to movements of said video

camera, said motion detector providing said scan motion data to said scanning manager

15   of said video camera, said scan motion data including at least one of a scan speed and

a scan direction ('284 – col. 4 lines 25-34 and 49-62.)

Regarding claim 14, Dunton, Chen and Kaye disclose all the limitations of claim

14 (see the 103(a) rejection to claim 11 supra), including a teaching a system wherein

said scanning manager extracts an initial still frame of said target object from said video

20   data that is captured by said video camera during said scanning procedure ('284 – col.

6 lines 20-25; col. 7 lines 35-43.)

Regarding claims 25-26, 28-31 and 34, although the wording is different, the material is considered substantively equivalent to claims 5-6, 8-11 and 14, respectively, as discussed above.

5   **Claims 12 and 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunton et al. (US 6,304,284), Chen (US 6,552,744) and Kaye (US 5,497,188) as applied to claims 11 and 31 above, and further in view of Sussman et al. (US 4,793,812.)

Regarding claim 12, Dunton, Chen and Kaye teach all the limitations of claim 12

10   (see the 103(a) rejection to claim 11 supra), except for a direct teaching of a system wherein said motion detector generates said scan speed by monitoring a rotational velocity sensor for at least one wheel upon which said cradle travels during said scanning procedure. However, Kaye does teach at least one wheel upon which said cradle travels during said scanning procedure that receives motion control that is related

15   to camera position (col. 9 lines 43-45.) Additionally, Sussman teaches monitoring of rotational velocity of rollers to determine scan speed (col. 5 lines 16-26; col. 6 lines 24-31.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to monitor a rotational velocity sensor for at least one wheel during a scanning procedure as taught by Sussman, in conjunction with the motion detector of

20   the system as taught by Dunton, Chen and Kaye. One of ordinary skill in the art at the time of the invention would have been motivated to combine these teachings in order to correlate the scan speed with the actual speed of the camera as it moves, so that the

images are acquired at appropriate timing and the required amount of overlap between

scanned images is achieved. The monitored information may also be employed in the

later stitching process to associate concurrent images, without requiring the matching of

key points on the images.

5   Regarding claim 32, although the wording is different, the material is considered

substantively equivalent to claim 12 as discussed above.

Claims 13, 15-18, 33 and 35-38 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Dunton et al. (US 6,304,284), Chen (US 6,552,744) and Kaye (US

10   5,497,188) as applied to claim 11 above, and further in view of Bohn et al. (US

6,002,124.)

Regarding claim 13, Dunton, Chen and Kaye teach all the limitations of claim 13

(see the 103(a) rejection to claim 11 supra), except for directly teaching a system

wherein said scan speed is expressed by a formula:

15   Scan Speed = Non-Overlapped Scan Distance/Time Interval

where said Non-Overlapped Scan Distance is a length of a non-overlapped

region of an immediately-preceding still frame prior to a start of a current still frame, and

said Time Interval is a length of time required by said cradle to transport said video

camera across said Non-Overlapped Scan Distance to said start of said current still

20   frame. Nevertheless, Bohn teaches scanning of an image to be stitched, where the

scan speed is equated in relation to the sampling time of a frame and overlap between

frames (col. 11 lines 44-58.) In light of the teachings in Bohn, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to calculate

scan speed via overlap distance in relation to time, within the system as taught by

Dunton, Chen and Kaye, in order to properly relocate the camera between images.

Regarding claim 15, Dunton, Chen and Kaye teach all the limitations of claim 15

5   (see the 103(a) rejection to claim 14 supra), except for directly teaching a system

wherein said scanning manager extracts a current still frame of said target object from

said video data at a pre-determined time interval during said scanning procedure.

Nevertheless, Bohn teaches scanning of an image to be stitched, in which a current still

frame of a target object to be scanned is extracted at a pre-determined time interval

10   during said scanning procedure (col. 11 lines 44-48.) It would have been obvious to

one of ordinary skill in the art at the time the invention was made to integrate the

sampling interval as taught by Bohn, within the scanning manager of the system as

taught by Dunton, Chen and Kaye. One of ordinary skill in the art at the time the

invention was made would be motivated to combine these teachings so that the images

15   later employed in the stitching process will possess the requisite amount of overlap.

Regarding claim 16, Dunton, Chen, Kaye, and Bohn teach all the limitations of

claim 16 (see the 103(a) rejection to claim 15 supra), including a teaching a system

wherein said scanning manager determines an overlap region between said initial still

frame and said current still frame by referencing said scan motion data ('284 col. 4 line

20   49 – col. 5 line 21.)

Regarding claim 17, Dunton, Chen, Kaye, and Bohn teach all the limitations of

claim 17 (see the 103(a) rejection to claim 16 supra), including a teaching a system

wherein said scanning manager calculates an overlap length for said overlap region
according to a formula:

Overlap Length=Still Frame Length-Non-Overlapped Scan Distance

where said Overlap Length is a distance from a start of said overlap region to an end of
said overlap region, said Non-Overlapped Scan Distance is a length of a non-
overlapped region of said initial still frame prior to a start of said current still frame, and
Still Frame Length is a constant length of one of said still frames ('284 col. 4 line 49 –
col. 5 line 6; col. 6 line 43 – col. 7 line 16.)

Regarding claim 18, Dunton, Chen, Kaye, and Bohn teach all the limitations of
claim 18 (see the 103(a) rejection to claim 16 supra), including a teaching a system
wherein a stitching software program combines ('744 – col. 6 lines 45-46, lines 32-59,
col. 7 lines 7-11) said video data in said overlap region between said initial still frame
and said current still frame to provide greater image detail and increased image
resolution, said stitching software program thereby generating a composite still image of
said target object from said initial still frame and said current still frame ('284 col. 4 line
49 – col. 5 line 21; col. 6 line 20 – col. 7 lines 3-11 and line 43.)

Regarding claims 33 and 35-38, although the wording is different, the material is
considered substantively equivalent to claims 13 and 15-18, respectively, as discussed
above.

Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunton
et al. (US 6,304,284) and Chen (US 6,552,744), in view of Anderson (US 6,177,957.)

Regarding claim 41, Dunton and Chen teach similar limitations in claims 1 and 21 (please see the 103(a) rejection to claim 1 supra), however, neither Dunton nor Chen teach the above steps taking the form of program instructions within a computer-readable medium.

5   Anderson is found and is provided to teach putting operational steps, in the form of program instructions, onto a computer readable medium (col. 13 lines 33-54, col. 14 lines 25-43.) It would have been obvious to one of ordinary skill in the art at the time of the invention to transfer the steps as taught by Dunton and Chen, which are effectuated by processors within programmed devices, and due to their processor based execution,

10   are employed as programmed instructions, onto a computer readable medium comprising program instructions as taught by Anderson, so that they may be loaded as firmware onto a device to update or restore device functionality without having to update or replace device hardware.

15   *Allowable Subject Matter*

Claims 7 and 27 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 7 and 27, the prior art is not found to teach or fairly suggest, in combination with the existing elements of the present claim as currently amended, the

20   user entering a scan parameter that includes a negative overlap setting and a corresponding error warning generated on a user interface when a system user enters said invalid negative overlap setting.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary C. Vieaux whose telephone number is 571-272-7318. The examiner can normally be reached on Monday - Friday, 8:00am - 4:00pm.

10   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen T. Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

15   published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Gary C. Vieaux
Examiner
Art Unit 2612

NGOC-YEN VU
PRIMARY EXAMINER